Attachment 1

Strategic Asset Allocation California Employers' Retiree Benefit Trust (CERBT)

Geraldine Jimenez & Raymond Venner

March 14, 2011

CalPERS | Investment Office
Affiliate Investment Programs

Background and Objectives

The California Employers’ Retiree Benefit Trust (CERBT) allows employers to pre-fund health & other post-employment benefit obligations.

This presentation recommends the adoption of three CERBT policy portfolios - conservative, moderate, or aggressive.

Each CERBT participant employer would select one of the three approved policy portfolios.

CERBT Asset Classes

CERBT Current	CERBT Proposed
N/A	TIPS
U.S. Fixed Income	U.S. Fixed Income
U.S. High Yield	N/A
U.S. Equity	Global Equity
Int'l Equity	
Global REITs	Global REITs
N/A	Commodities

2011 Enhancements

- Consolidate U.S. and Int'l equity into "Global Equity" with emerging markets
- Remove US high yield bonds since included in U.S. Fixed Income
- Add Commodities & Treasury Inflation Protection Securities (TIPS) to enhance diversification and hedge against rising inflation
- Offer five broad asset classes for diversification & customization based on risk aversion

Forecast Asset Returns

	Compound Return	Volatility of Return	Arithmetic Return
U.S. Inflation Linked Bonds	3.50%	6.0%	3.67%
U.S. Nominal Bonds	3.75%	6.5%	3.95%
Global Equity	7.75%	16.0%	8.93%
Global Public Real Estate	7.75%	18.0%	9.24%
Commodities	5.00%	21.0%	7.08%

Forecast Sources

- Inflation-linked bonds (TIPS), nominal bonds, global equity, and commodities equates to Retirement Plan 2010 ALM Study, Nov. 2010
- Global REITs are assumed to have the same return as other equities but higher volatility consistent with long-term historical returns

Asset Class Caps and Floors

	Min	Max
U.S. Inflation Linked Bonds	5%	15%
U.S. Nominal Bonds	15%	100%
Global Equity	0%	80%
Global Public Real Estate	0%	8%
Commodities	0%	3%

Assumptions

- Maximum and minimum target allocations represent considerations not fully captured in the optimization
- Upper limits are set for assets that are potentially illiquid and that have a relatively small investable universe
- TIPS have a minimum because it is the asset most similar to the liabilities
- Minimum target weight on U.S. investment grade bonds ensures that at least 20% of every policy portfolio diversifies risks of growth assets

Forecast Correlations

	U.S. Inflation Linked Bonds	U.S. Nominal Bonds	Global Equity	Global Public Real Estate
U.S. Inflation Linked Bonds				
U.S. Nominal Bonds	0.55			
Global Equity	0.00	0.10		
Global Public Real Estate	0.17	0.14	0.55	
Commodities	0.20	0.00	0.10	0.26

Correlation measures the co-movement of asset returns. A lower correlation indicates better diversification.

Source of forecast correlations

- Inflation linked bonds, nominal bonds, global equity, and commodities = Retirement Plan 2010 Asset Liability Workshop
- Global public real estate = Wilshire Jan. 2010 for consistency with other correlations (little change between 2010 and 2011)

Correlation vs. global equity are highest for public real estate.

Alternative CERBT Policy Portfolios

Nine alternative policy portfolios were selected from conservative (P1) to aggressive (P9)

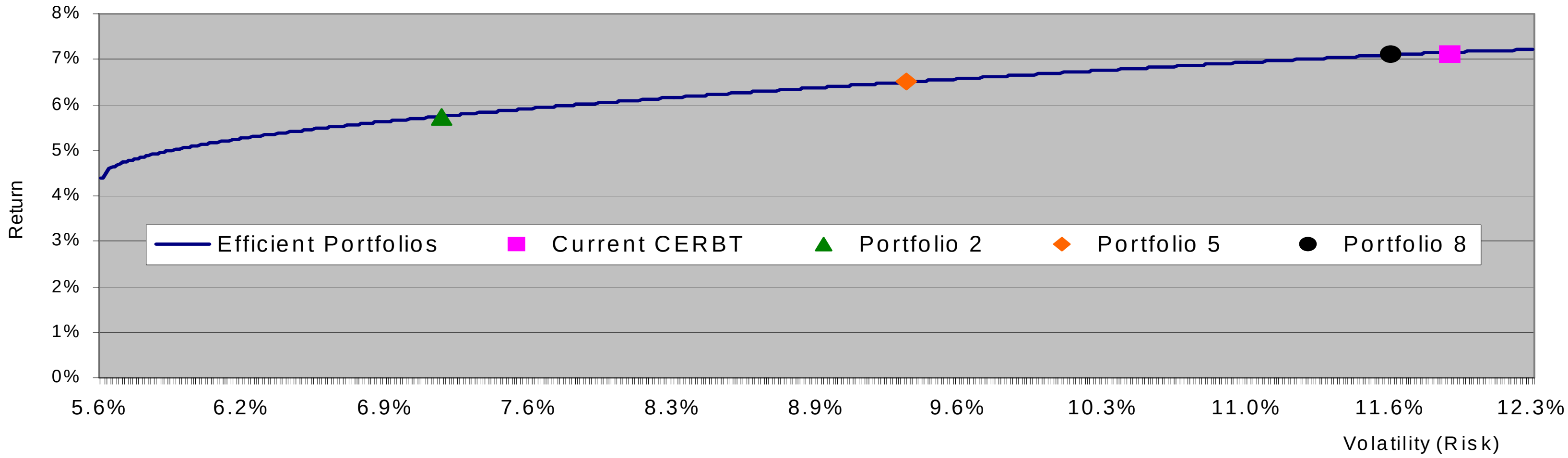
	Current CERBT	P1	P2	P3	P4	P5	P6	P7	P8	P9
Expected Annual Nominal Return										
Compound	7.13%	5.50%	5.75%	6.00%	6.25%	6.50%	6.75%	7.00%	7.10%	7.20%
Volatility	11.90%	6.74%	7.27%	7.90%	8.63%	9.46%	10.35%	11.31%	11.73%	12.18%
Average	7.79%	5.71%	6.00%	6.29%	6.60%	6.92%	7.25%	7.59%	7.74%	7.89%
Sharpe Ratio	0.389	0.445	0.447	0.443	0.434	0.423	0.411	0.398	0.392	0.386
Allocation										
US I.L. Bonds (TIPS)	0.0%	15.0%	15.0%	15.0%	15.0%	15.0%	10.6%	5.8%	5.0%	5.0%
U.S. Nominal Bonds	20.0%	48.1%	42.4%	36.5%	30.4%	23.9%	21.9%	20.1%	18.0%	15.0%
U.S. High Yield Bonds[1]	6.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Global Equity	64.0%	25.9%	31.6%	37.5%	43.6%	50.1%	56.5%	63.1%	66.0%	69.2%
Global Public Real Estate	10.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Commodities	0.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	2.8%

The recommended portfolios are P2, P5, and P8 (highlighted in yellow)

- P2 = Conservative, P5 = Moderate, and P8 = Aggressive
- Enables CERBT employers to select from three portfolios with distinct risk-return profiles
- P8 is most similar to the Retirement Plan policy portfolio

[1] Source of forecast for High Yield Bonds = Wilshire January 2011

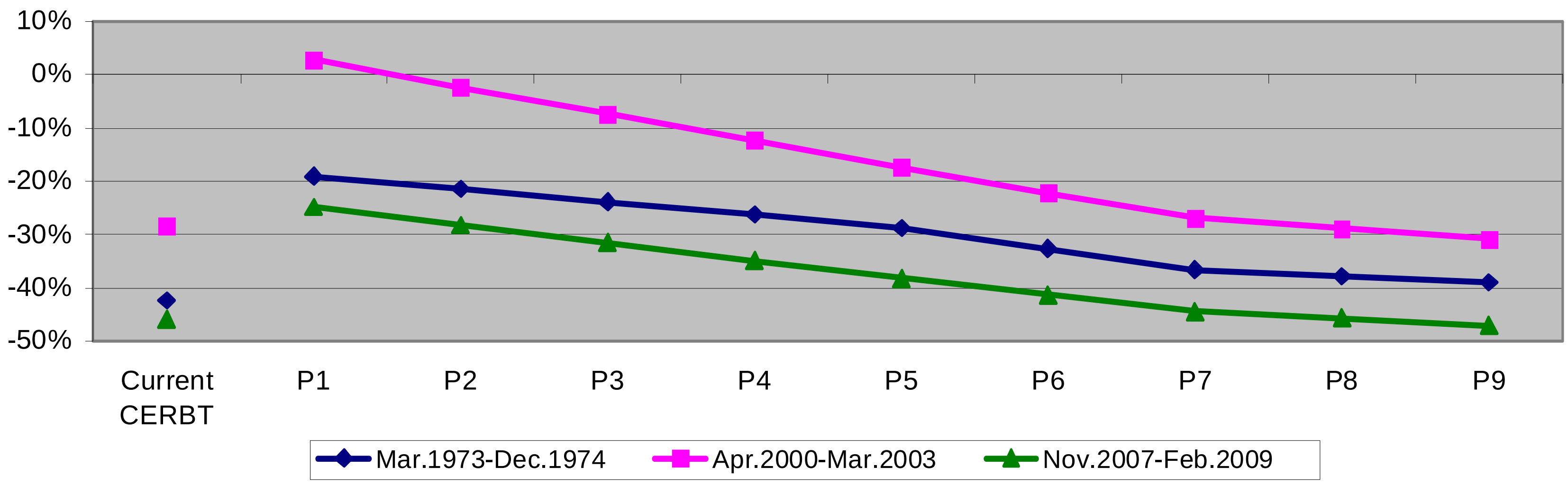
Forecast Returns and Volatilities
Current and Recommended CERBT Policy Portfolios



Blue line indicates the portfolios with the highest expected return for a range of volatilities given the asset class forecast returns and constraints

- The current CERBT fund is aggressive
- The three recommended portfolios are "efficient" portfolios with meaningfully different risk profiles

Simulated Portfolio
Cumulative Real Returns During Equity Downturns



The recommended portfolios are P2, P5, and P8

Simulated Portfolio Returns - Observations

- Since 1970, there have been three periods with cumulative equity market losses exceeding 45%.
- Simulated returns during these stress periods are shown for the current CERBT and policy portfolios P1 to P9.
- Maximum losses: 28% for P2, 38% for P5, and 46% for P8.
- Return differences across portfolios were greater during the 2000-03 downturn, when returns of non-equities (REITs, TIPS, nominal bonds, commodities) were all positive, providing effective diversification.

Next steps

- Program staff will recommend to BPAC three asset allocation portfolios on March 15, 2011.
- Actuarial staff will recommend discount rate assumptions for each of the three portfolios to BPAC on March 15, 2011.
- Investment staff will revise the current investment policy and submit to the IC Policy Subcommittee on April 11, 2011. If approved, the item will go to the Investment Committee on May 16, 2011 for final approval.
- Program staff will introduce new portfolios to employers this spring.
- Investment staff will develop implementation alternatives:
  - External versus internal management
  - Co-investment options
  - Cash flow management